

BEFORE THE LOUISIANA PUBLIC SERVICE COMMISSION

In Re: BellSouth Telecommunications Inc.)
Service Quality Performance Measurements) Docket No. U-22252-Subdocket C

STAFF FINAL RECOMMENDATION

On April 30, 1998, BellSouth Telecommunications, Inc. (BST or BellSouth) filed two revisions to its Statement of Generally Available Terms and Conditions (SGAT), including a proposal for Service Quality Performance Measurements (SQPM). At the June 17, 1998 Business and Executive Session, the Louisiana Public Service Commission (LPSC or Commission) adopted on an interim basis the SQPM filed by BellSouth.¹ The Commission further ordered that a rule making proceeding be commenced and completed to determine final SQPM for presentation at the August 19, 1998 Business and Executive Session.²

Louisiana Public Service Commission Staff (Staff) immediately published the opening of the above referenced docket and a request for comments in the next LPSC Bulletin dated June 26, 1998 following the June Business and Executive Session. Staff received comments on July 10, 1998 from e.spire, BST, MCI, Cox and AT&T and Direct Testimony of Melissa L. Closz from Sprint and Venetta Bridges from MCI. Reply comments were received on July 20, 1998 from AT&T, e.spire, Sprint and BST and Reply Testimony of Venetta Bridges with MCI. A technical conference was held on July 23, 1998. Staff requested additional comments on July 28,

¹ See Louisiana Public Service Commission General Order No. U-22252-B, dated July 1, 1998.

2 **Id.**

1998 from any party with additional information on statistics, penalties and levels of disaggregation. Staff received additional comments from BST, MCI, AT&T and Intermedia Communications. Pursuant to the procedural schedule in the above referenced docket, BST, MCI, AT&T, Sprint, e.spire, and Cox filed reply comments to Staff's initial recommendation on August 10, 1998.

After examining the Parties' comments, reply comments, post-technical conference comments, reply comments to Staff's initial recommendation, and holding a technical conference, Staff issues this final recommendation concerning the BST SQPM.

I. INTRODUCTION

The Telecommunications Act of 1996 (the Act) requires that incumbent local exchange carriers (ILEC) provide services and facilities in a nondiscriminatory manner and on a just and reasonable basis.³ These provisions of the Act are designed to hasten the development of competition in local exchange markets by ensuring incumbent carriers do not provide services and facilities in a manner that favor their own retail operations over competing carriers, or in a manner which favors certain competing carriers over others.⁴ More simply, an ILEC must provide services and facilities to competitive local exchange carriers (CLECs) that are at least equal in quality to that provided by the ILEC to itself or to any affiliate, subsidiary, or any other party to which the ILEC provides service.⁵

³ 47 U.S.C. 251(c)(3) and (4).

⁴ *In the Matter of Application by BellSouth Corporation, et al., Pursuant to Section 271 of the Communications Act of 1934, as amended, To Provide In-Region, InterLATA Services in Louisiana*, CC Docket No. 97-231 (Rel. Feb. 4, 1998) para. 20,23,33.

⁵ Id.

Staff finds that adequate performance measurements and standards for UNEs and resold services are essential to the immediate development of local competition in the State of Louisiana. Staff's final recommendation includes recommendations on performance measurements, levels of disaggregation, including product disaggregation and geographic disaggregation, standards and benchmarks, statistical tests, reporting, auditing and data detail, enforcement, dispute resolution and a procedural schedule.

II. PERFORMANCE MEASUREMENTS

The categories of performance standards as generally presented by all Parties are: pre-ordering, ordering, provisioning, maintenance and repair, billing, operator services and directory assistance, E911, trunk group performance and collocation. Staff finds that this method of categorization appropriately identifies the areas in which performance measurements are necessary. With respect to specific measurements in each category, Staff recommends that the Commission adopt the performance measurements attached as exhibit A to this recommendation. The measurements found in Exhibit A are those measurements submitted in BellSouth's proposal which have been modified as indicated in Exhibit A.⁶ BellSouth is commended for submitting such a significant number of measurements. However, Staff's recommended changes, as noted in Exhibit A are necessary to ensure nondiscriminatory treatment as required by the Act. Furthermore, all changes recommended by Staff are based upon

⁶ All changes to the SQPM have been noted in Exhibit A with the exception of Product Disaggregation. BellSouth should be ordered to update its SQPM for product disaggregation as found in Section III of this recommendation.

all comments and testimony submitted in this proceeding and all information gathered at the technical conference.

In its Reply to Staff's Initial Recommendation, AT&T raises concerns over definitional issues with respect to BellSouth's performance measurements⁷. Staff agrees that further refinement of BellSouth's performance measurements and definitions may be required. However, Staff proposes that these issues be addressed in future workshops. It has been Staff's experience that while confusion may exist between the parties, these potential problems can be resolved with additional discussions between BellSouth and the CLECs. Staff proposes that clarification of performance measurements be addressed in future workshops as indicated in the Procedural Schedule Section of the Recommendation.

III. LEVELS OF DISAGGREGATION

In its Reply to Staff's Initial Recommendation, BellSouth claims that to implement Staff's proposed reporting at the levels of disaggregation recommended by Staff would require months of additional work and millions of additional dollars of investment in reprogrammed computer software and additional hardware⁸. Staff is mindful of BellSouth's concerns about the additional expenditures that may be required if the Commission adopts the Staff's recommendation. Nevertheless, Staff believes that further disaggregation is necessary and, as BellSouth must acknowledge, is the direction in which industry is moving. In addition, as noted below, Staff has modified its Initial Recommendation on product disaggregation to be

⁷ AT&T Reply to Staff's Initial Recommendation, pp. 1-4.

⁸ BellSouth's Reply to Staff's Initial Recommendation, p. 2.

reported for only provisioning and maintenance and repair categories. As set forth in Exhibit A, Staff has modified its Initial Recommendation to be consistent with BellSouth's Reply to Staff's Initial Recommendation that MSA reporting only applies to provisioning, maintenance and repair, trunk group performance, and collocation.

For the record, Staff points to BellSouth's claim that to implement the LCUG proposal would cost BellSouth an additional \$15,000,000 on a regional level⁹. Even if Staff's proposal was as detailed as LCUG's, which it is not, the significance of this expenditure for BellSouth must be put into perspective. The BellSouth nine state region serves approximately 22,000,000 customers. If the \$15,000,000 were amortized over a five-year period, which is consistent with the depreciation time period for computers and software, and if BellSouth's customers were required to pay for the expenditures, it would amount to a little over one cent per month, or \$.60 for the five year period¹⁰. Staff would also bring to the Commission's attention the nature of one participant's interest, specifically Sprint. Sprint operates as both a CLEC and an ILEC. Sprint, as an ILEC, operates in 18 states and serves more than 7 million access lines. Sprint endorses greater levels of disaggregation than proposed by BellSouth and generally supports Staff's MSA recommendation¹¹. Sprint, as an ILEC will also incur the expenditures associated with additional disaggregation in other states where commissions adopt similar levels of disaggregation. Despite these additional expenditures, Sprint consistently endorses

⁹ See Transcript, pp. 236.

¹⁰ $\$15,000,000/5 = \$3,000,000$; $\$3,000,000/22,000,000 = \$.13$; $\$.13/12 \text{ months} = \$.01124$.

¹¹ Reply Testimony of Melissa L. Closz, July 20, 1998, p. 4 and 8. Sprint's Reply to Staff's Initial Recommendation, pp. 1-2.




greater levels of disaggregation than proposed by BellSouth. As pointed out by Sprint's expert witness:

..., in weighing issues from a corporate perspective, Sprint has every interest in ensuring that Commission actions do not result in burdens on ILECs that have no sound business purpose for CLECs, nor is Sprint interested in imposing on ILECs requirements that are difficult and costly¹².

Therefore, for the reasons given here, as well as the ones addressed below, Staff continues to endorse and recommend levels of product and geographic disaggregation greater than that proposed by BellSouth.

Product Disaggregation

Generally, there were three proposals pertaining to levels of product disaggregation: the 25 levels of disaggregation proposed by the ALTS¹³ group, the 16 proposed by the LCUG¹⁴ group, and the 5 proposed by BellSouth. Staff recommends that the Commission order the following levels of product disaggregation for provisioning, maintenance and repair performance measurement categories:








-  resale¹⁵ residential POTS
-  resale business POTS
-  resale ISDN

¹² Reply Testimony of Melissa L. Closz, July 20, 1998, p. 3.

¹³ ALTS stands for Association for Local Telecommunications Services. The ALTS proposals are supported by e.spire, AT&T, MCI, Sprint, MFS, TCG, GST, and Brooks Fiber in Arizona.

¹⁴ LCUG stands for Local Competition User Group and consists of AT&T, Sprint, MCI, LCI and WorldCom.

¹⁵ All resale measurements should also report for dispatched and non-dispatched service.

-  resale Centrex
-  resale PBX
-  other resale
-  unbundled loops 2-wire
 - w/interim number portability
 - w/o interim number portability
-  unbundled loops all other
 - w/interim number portability
 - w/o interim number portability
-  unbundled ports
-  interconnection trunks

Staff's recommended levels of product disaggregation are similar to the levels of disaggregation proposed by the FCC.¹⁶ This level of disaggregation is also similar to the levels proposed by BellSouth, but contains only five additional categories. Staff believes that this level of disaggregation provides a reasonable compromise between the proposed levels of the various parties. Specifically, Staff believes that this level of disaggregation provides a reasonable compromise between the need to disaggregate performance measurements for purposes of ensuring the collection of useful data and minimizing the burden placed upon the ILEC of collecting and reporting such data. BellSouth's proposal for product disaggregation does not sufficiently disaggregate data by product or service. AT&T described this deficiency in BellSouth's proposal:

¹⁶ Notice of Proposed Rulemaking, In Re: Performance Measurements and Reporting Requirements for Operations Support Systems, Interconnection & Operator Services and Directory Assistance, CC Docket No. 98-56.

"Aggregating performance for dissimilar services results in comparisons of questionable value. The FCC has recognized the importance of service level disaggregation.¹⁷ BellSouth's own standard industry guide for CLECs indicates the need for performance results disaggregated by product or service. For example, the guide reflects longer service delivery intervals for PBX trunks than for a comparable volume of measured business lines. BellSouth's SQM proposes to average such results and report CLEC performance in the generic category of resale POTS-business. In addition, the same CLEC guide identifies six different types of unbundled loops, but BellSouth's SQM proposes to report on only a single category of unbundled loops."¹⁸

Staff agrees with the concerns raised by AT&T and the other CLECs and therefore, recommends a level of product disaggregation that provides more useful information than proposed by BellSouth. Although Staff is not recommending that levels of product disaggregation recommended by LCUG and ALTS, Staff observes that more disaggregated data is provided to the individual CLECs on BellSouth's web site.¹⁹ While the CLECs expressed some concern over the data published on the web site, in terms of ease of use, Staff believes that these problems can be quickly resolved. It was also evident to Staff that some CLECs had not spent any significant amount of time working with the data published on the web site. In addition, AT&T requests that BellSouth be required to publish raw data for its own performance results on its "data warehouse web site." Staff is concerned that the requested information would be considered proprietary, but Staff does recommend that this be explored in future workshops.

¹⁷ FCC Ameritech Order ¶170.

¹⁸ See AT&T original comments pp. 9-10.

¹⁹ See Transcript pp.237-259.

For the reasons addressed by AT&T as well as the other CLECs and because of the cost concerns of BellSouth, Staff recommends the above listed levels of disaggregation. In addition, Staff recommends that the Commission adopt BellSouth's recommendation that the Commission review and assess the performance data reported as a result of the Commission's findings in the instant docket over the next six months, and through additional workshops, determine if more or less levels of disaggregation are necessary.

Geographic Disaggregation

BellSouth proposes to report its performance measurements at the state and regional levels. BellSouth contends that further disaggregation as proposed by the CLECs to the Metropolitan Statistical Areas (MSA), or city level is overly burdensome and costly and unnecessary.²⁰ CLECs, on the other hand, contend that further geographic disaggregation is necessary because new entrants are likely to operate only in extremely limited geographic market areas. Comparing BellSouth's performance on a statewide basis to a CLEC operating in a few large cities would likely result in misleading comparisons. According to AT&T, a meaningful "apples-to-apples" comparison requires that performance data for both CLECs and BellSouth be reported for the same geographic markets area.²¹ AT&T commented that one problem with BellSouth's proposal is that it essentially fails to sufficiently disaggregate its reported data to meaningful levels. AT&T continues:

"First, BellSouth's proposal does not disaggregate its data into sufficiently small geographic areas. Statewide or region-wide data

²⁰ See BellSouth Original Reply Comments p. 6.

²¹ See AT&T Original Reply Comments p. 4.

will yield less meaningful comparisons than data that is provided according to the area in which the work is done. For example, in rural areas, travel times for dispatch activities may be longer or technology may be less modern than that found in urban areas. By averaging performance over an entire state, BellSouth's report may disguise real and important differences in performance. In addition, for CLECs who operate in small geographic areas, comparison with data on a statewide basis will not reveal whether BellSouth is providing them non-discriminatory access within their serving area. Aggregation with its "averaging" effect could mask discrimination to the detriment of CLECs and ultimately Louisiana consumers."²²

Sprint, a CLEC in Louisiana and an ILEC in 18 other areas, explained why it is important to have greater geographic disaggregation:

"Sprint believes that statewide reporting is too broad (unless and ILEC serves only a small portion of a state) to accurately identify areas of potential discrimination in service²³ and therefore supports reporting on the basis of a smaller geographic unit than an entire state. The Sprint ILECs - and Sprint believes other ILECs as well - already keep data in geographic units smaller than a state (e.g., by exchange or by district) and as long as the ILEC uses smaller than statewide reporting units for its own internal business purposes, these units should suffice for purposes for these rules as well."²⁴

Staff agrees with both the CLECs and BellSouth. During the early stages of competition, CLECs are likely to be operating in large cities and a comparison to a statewide average of BellSouth performance could be misleading. However, the Commission needs to balance the

²² See AT&T original comments pp. 9-10.

²³ E.g., in instances where competition exists in only one city in a state, statewide reporting could mask the fact that in that city, the ILEC may be giving far better service to its own customers than to the CLECs, even though its service to the CLECs matches its statewide performance to its own customers.

²⁴ See Sprint Direct Testimony of Melissa Closz, p. 9.

need to monitor BellSouth's performance with the burdens placed upon BellSouth in collecting and reporting performance measurements.

Staff recommends as a compromise, that the Commission order BellSouth to report its performance measurements at the regional, state, and MSA. MSA level reporting would only be necessary where work is actually performed at that level. MSA level of reporting would apply only to the following categories of performance measurements: provisioning, repair and maintenance, and trunk groups. As pointed out by BellSouth these are the only areas where rural differences could make a difference in performance reporting and potentially mask discrimination.²⁵ Providing performance measurements at the MSA level in addition to the state and regional level²⁶ provides more disaggregation than originally proposed by BellSouth, but Staff believes the additional information is necessary and would prove useful in monitoring performance. Due to the difficulties in implementing this process, Staff recommends that BellSouth be given four months to implement this recommendation.

IV. STANDARDS AND BENCHMARKS

The FCC requires at a minimum that ILECs provide parity of service to CLECs for those processes where a retail analog exists and to offer CLECs a meaningful opportunity to compete for those areas of the telecommunications business where parity cannot be measured.²⁷

²⁵ Ibid.

²⁶ BellSouth's proposal already agrees to report at the Regional and the State levels.

²⁷ Notice of Proposed Rulemaking, In Re: Performance Measurements and Reporting Requirements for Operations Support Systems, Interconnection & Operator Services and Directory Assistance, CC Docket No. 98-56.

Most CLECs supporting the LCUG presentation endorse the use of benchmark performance standards where an analogous retail service does not exist. The same CLECs also recommend benchmarks performance standards in the event that the ILEC does not have sufficient data to determine the performance measurement for its retail operations, or refuses to provide the information.²⁸ MCI endorses the use of benchmark standards for all performance measurements.^{29, 30} BellSouth also supports the use of benchmarks where no retail analog exists.

³¹ For those cases where no retail analog exists, BellSouth endorses the use of "target intervals."³² These targets, according to BellSouth, are posted on the web page and have been provided to CLECs. As BellSouth's expert explained, these target intervals can be used as a starting point to establishing performance benchmarks where no retail analog exists. BellSouth suggests that performance benchmarks be established over time:

"The benchmarks, the quantitative benchmarks can be developed over time, but they are not fully established at this time. And our position, basically, is the position that the FCC has adopted, I hope with some urging on my part, but I'm never sure of that, that it's not -- we're not far enough along in the process yet to set benchmarks. We need to begin collecting the data and then over time establish these standards and benchmarks as appropriate."³³

²⁸ See AT&T Original Reply Comments p. 8.

²⁹ See Transcript p. 326.

³⁰ In its Reply to Staff's Initial Recommendation, MCI continues to strongly endorse the use of the LCUG performance benchmarks, regardless of whether or not a retail analog exists. Staff finds it important to point out that the supporting documentation for the performance benchmarks endorsed by LCUG are not well documented and the benchmarks are intended to be extremely aggressive. (See Transcript pp. 353-54.) In fact, AT&T's expert characterized the LCUG performance benchmarks as a "last resort." (See Transcript p. 354) Without additional evidence as to the reasonableness of these proposed benchmarks, Staff can not endorse their use.

³¹ See Transcript p. 325.

³² See Transcript pp. 279-297.

³³ See Transcript p. 180.

At this time, Staff recommends that the Commission establish performance benchmarks only where no analogous retail service exists. Unless performance benchmarks are established where no retail analog exists, it will be impossible for the Commission to determine if services to CLECs are being provided in a nondiscriminatory manner, or that efficient CLECs are being provided with a reasonable opportunity to compete. Because the information needed to establish the benchmarks where no analog exists is currently not available, Staff further recommends that the Commission order BellSouth to conduct special studies to establish the benchmark performance level.³⁴ Such studies should rely on experiences drawn from BST's operations and be completed by November 30, 1998. BST's expert indicated that requiring special studies to develop performance benchmarks would be less costly than modifying current systems to create retail analogs. Specifically, Mr. Stacy commented:

We're doing this where we contend that no retail analog exists, but if, in the Commission's judgment there is something that they define as a retail analog, the study approach makes a lot more sense than, than re-doing everything to capture it every month.³⁵

In addition, in its reply comments, BellSouth indicated that it supports "a reasoned process of collecting actual data on such functions and features for a period of time, and then using an industry forum to develop reasonable standards from that collected data."³⁶

The LCUG supporters found this suggestion to be acceptable as well. Specifically, Ms. Dailey indicated:

³⁴ Staff recommends that the commission set benchmarks. However, reasonable benchmarks cannot be set unless BST conducts a special study of its internal operations.

³⁵ See Transcript p. 351-52.

And from what the LCUG members have said in those workshops, I, I would think that a benchmark study would be acceptable as an alternative to doing a month by month parity. And if you guys differ here today... I think that would be acceptable to the LCUG members.³⁷

No other party voiced opposition to this approach.

Staff recommends that these studies and their associated methodology be further refined over the next six months with the continuation of workshops on performance measures.

At this time, there is one benchmark or standard, where no retail analog exists, that Staff recommends as part of the BellSouth SQPM. Staff recommends that a standard cutover time of five minutes, not to exceed fifteen minutes, as the standard for BellSouth to perform a loop cutover, including number portability. This standard was proposed by e.spire and adopted by the Georgia Commission.³⁸ According to e.spire, loop cutover interval is crucial to the development of facilities-based competition in Louisiana because it is a direct measure of the customers' service disruption during the conversion to a CLEC. Staff agrees with e.spire that if the cutover interval is excessively long or unpredictable, customers will be reluctant to switch to CLECs³⁹. BellSouth has already agreed to this standard in e.spire's Interconnection Agreement.⁴⁰ In addition, according to e.spire's Reply to Staff's Initial Recommendation, BellSouth has indicated that it is currently meeting this performance standard. In its Brief in Support of its Second

³⁶ See BellSouth Reply Comments p. 6.

³⁷ See Transcript pp. 337-339.

³⁸ *Performance Measurements for Telecommunications Interconnection, Unbundling and Resale*, Georgia Public Service Commission Order No. 7892-U, December 30, 1997.

³⁹ e.spire original Comments p. 7.

⁴⁰ *Ibid.*, p. 6.

Application for Section 271 Authority, BellSouth stated that "[i]n a recently completed study, BellSouth determined that the average cutover time per loop was approximately four minutes, and the average time to port the number was 39 seconds."⁴¹ Finally, BellSouth indicated at the technical conference, that it did not intend to appeal any aspect of the Georgia Commission's Order on performance measurements⁴². Consequently, Staff finds that the standard for loop cutovers should be five minutes, not to exceed fifteen minutes, including number portability.

With respect to establishing performance benchmarks where a retail analog exists, Staff does not believe that such benchmarks should be set at this time. If further analysis and across state and across company⁴³ comparisons indicate that BellSouth's Louisiana operations are performing at a substandard level, then the Commission should initiate an investigation into setting performance benchmarks even where a retail analog exists.

V. STATISTICAL TESTS

The Parties generally agree that the application of a statistical analysis to performance measurement data is necessary and would be useful in determining whether BellSouth is meeting the statutory requirements with respect to its provision of unbundled network elements, resale, and interconnection to CLECs. Staff agrees and finds that statistical analysis

⁴¹ Second Application by BellSouth for Provision of In-Region, InterLATA Services in Louisiana, FCC-CC Docket No. 98-1231, at 57; e.spire Reply to Staff Initial Recommendation p. 2.

⁴² See Transcript, pp. 13-14, where Mr. Stacy said: "It has not been appealed by any party and, in fact, BellSouth has filed a specific separate notice, at their request, that we do not intend to appeal it. But it has not been appealed by any party."

⁴³ Over the next six to 12 months many ILECs will be reporting performance measurements to their respective Commission's and CLECs. In addition, BellSouth will be reporting performance measurements in each of its nine states. By comparing the performance measurements of BellSouth's Louisiana operations to these other states and other ILECs the Commission will be able to determine if BellSouth's performance is subpar.

can help reveal the likelihood that reported differences in an ILEC's performance toward its retail customers and CLECs are due to underlying differences in behavior rather than random chance. Staff believes that a uniform methodology which identifies those items which need to be measured, how they are to be measured, and how the results are to be reported is also desirable and would be beneficial to all parties.

Statistical tests are effective in identifying those measurements where differences in performance exist. The tests themselves cannot identify the cause of the apparent differences. The differences may be due to a variety of reasons, including; 1) when the ILEC and CLEC processes being measured are actually different and should not be expected to produce the same result, 2) when the ILEC is employing discriminatory practices, or 3) when assumptions necessary for the statistical test to be valid are not being met.

In the instant proceeding the CLECs advocate the use of the LCUG proposed modified "z-test." In contrast BellSouth recommends use of statistical process control. The CLECs criticize the statistical methodology proposed by BellSouth because the method does not measure parity between BellSouth and CLECs. For instance, according to AT&T, statistical process control is not designed to detect difference in parity. Rather, it is used to detect departures from stable performance.⁴⁴

BellSouth criticizes the LCUG proposed modified "z-test" indicating that it is flawed in at least three respects: 1) the major premise of the proposal is flawed in that it infers that the ILEC and CLEC samples came from the same population when, by definition the

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See AT&T Post-Technical Conference Comments p. 4.

populations are mutually exclusive; 2) the test is significantly biased toward demonstrating that BellSouth is failing to provide parity service; and 3) with such a large number of "observations", the z-statistic is essentially meaningless.⁴⁵

Staff agrees that statistical testing is important to the performance monitoring process and to detecting potential discrimination. Staff is concerned that the process is too new to set in stone a particular statistical methodology, particularly without further study. As BellSouth pointed out in its comments, the complexity and novelty of these issues suggests a need for a far more developed record before this Commission endorses any particular statistical method. At this point in time, little actual experience exists with BellSouth's service order, installation and maintenance procedures; and with the CLECs' and BellSouth's roles in this process. Since systems and procedures are relatively new, little is known about the statistical properties of the proposed measures.

Accordingly, Staff recommends that the Commission order BellSouth to perform the statistical testing that it proposes (statistical process control), the modified z-test endorsed by the CLECs, and the pooled variance test offered by the FCC in its Notice of Proposed Rulemaking, Appendix B so the competence of each test can be demonstrated over a reasonable period of time. This approach apparently is agreeable with BellSouth's position, as Mr. Stacy, the BellSouth expert indicated at the technical conference that: "The Georgia Commission passed on, without ruling on a specific method, and we'd ask you simply to take notice of that, and that

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See BellSouth Post-Technical Conference Comments pp. 4-5.

we do not believe it is yet time to establish a single method for analysis."⁴⁶ Staff recommends that these statistical tests be performed so that they can be evaluated at subsequent workshops to determine which method is best suited for measuring parity in Louisiana.

The development of performance measurements, the determination of retail analogs, the development of performance standards or benchmarks, and the complexities of statistical testing require that no one test be endorsed at this time. If, for example, BellSouth's criticisms of the modified z-test are correct, then BellSouth could be shown to be out of parity by virtue of the statistical testing methodology, when in fact, BellSouth's performance is in parity with the performance provided to the CLEC. Likewise, if the CLECs criticisms of BellSouth's proposed statistical test are accurate, then the BellSouth statistical methodology will always show BellSouth to be providing parity performance for CLECs, when in fact it may not be. Without testing and evaluating these statistical methods on real performance measurements, Staff does not believe that an informed and accurate decision can be made as to which statistical methodology is best for determining whether or not parity exists.

With respect to BellSouth capabilities, BellSouth's reply to Staff's Initial Recommendation claims that its systems are simply not capable of running the "z"-test at this time, and would require major renovation in order to permit them to do so. According to BellSouth, its systems are not designed to capture the raw data to compute standard deviations on those dimensions where an average is computed. Rather than requiring BellSouth to run the "z"-test on the entire universe of measurements, BellSouth requests that a sampling of measurements

be run using the "z"-test. This suggestion is made in the alternative to not doing any statistical testing until a workshop is held on statistical methodologies. Staff recognizes BellSouth's concerns. However, Staff is also concerned that continual delays in the process will not foster competition in Louisiana. BellSouth's claims are also disputed by MCI. According to MCI, "the z-test can be performed simply and efficiently on a regular personal computer."⁴⁷ Therefore, according to MCI any claims by BellSouth that conducting the "z"-test in addition to statistical process control would be burdensome or costly should be rejected.⁴⁸ Staff recommends that BellSouth perform its proposed statistical test, the modified z-test endorsed by LCUG, and the FCC's proposed pooled variance test, for those performance measurements where a retail analog exists, and where there is not an average computed.⁴⁹ Staff also recommends, that BellSouth collect the data necessary to run all three statistical tests for the following performance measurements which compute an average: Average OSS Response Interval-PreOrder and Ordering, Average Completion Interval-Provisioning, and Maintenance Average Duration.

Staff further recommends that the Commission continue holding workshops instructing both CLECs and BellSouth to work in a collaborative fashion to reach agreement on an appropriate statistical methodology. These workshops would be used not only to evaluate the theoretical differences between the three methods, but should encompass thorough examinations

⁴⁷ MCI Reply to Staff's Initial Recommendation, p. 9, footnote 3.

⁴⁸ Ibid.

⁴⁹ It appears to Staff that any undue burden placed on BellSouth only relates to measurements where an average is computed. Consequently, running a z-test and pooled variance test on these other measurements does appear to be a burdensome request.

of these tests as applied to actual performance measurements. In addition, root cause analyses should be performed, where the statistical measurement suggests a parity situation does not exist.

VI. REPORTING, AUDITING AND DATA DETAIL

All Parties generally support the proposal that reports on performance measurements should be provided monthly to the Commission and each requesting CLEC indicating BellSouth's own internal performance, its performance for any BellSouth affiliate, its performance for all CLECs in aggregate, and its performance for the individual CLEC requesting the report. Staff agrees. BellSouth should further be required to maintain all data and information used in the compilation of the performance measurements and develop any necessary tracking systems. While Staff does not believe that all of the data necessary to validate the calculation of the performance measurement needs to be provided with the monthly reports, the data should be available in some fashion, for example on the web. Furthermore, all data necessary to compute the performance measurements should be retained for three years.⁵⁰ This will allow the Commission and CLECs the opportunity to examine the data and validate the results to the extent desired.

Staff agrees with the CLECs and BellSouth that the Commission should grant CLECs, as a part of monitoring a nondiscriminatory service, reasonable auditing rights with regard to BellSouth. However, such auditing rights should not be overly burdensome on BellSouth. If a CLEC detects potential discrepancies between the CLEC's internally generated data and the

⁵⁰ BellSouth has agreed to a three year retention period in Georgia. *Performance Measurements for Telecommunications Interconnection, Unbundling and Resale*, Georgia Public Service Commission Order No. 7892-U, December 30, 1997.

data relied upon by BellSouth in the reporting process, the affected CLEC should be permitted to audit the data collection, computation and reporting processes of BellSouth within fifteen days of a written request. Staff recommends any costs associated with such an audit would be borne by the CLEC.

Staff also agrees with BellSouth's proposal for an annual comprehensive audit of its performance measurements for both BellSouth and CLECs for each of the next five years. Staff further agrees that the audit should be conducted by an independent third party and that the results of the audit be made available to all parties. While BellSouth proposes to fund this audit, Staff recommends that the cost be borne 50% by BellSouth and 50% by the CLECs. This will ensure the independence of the audit and also does not place the entire cost burden on BellSouth. In addition, the selection of the independent third party auditor shall be done with input from both BellSouth and the CLECs. The scope of the audit shall also be jointly determined by BellSouth and the CLECs. Staff endorses a company-wide audit because small start-up CLECs may not have the resources to conduct audits, monitor performance, and detect discrimination. Additionally, the parties may find that one annual, company-wide audit is preferable and less costly than several, individual CLEC audits.

VIII. ENFORCEMENT

To help ensure the success of the performance measurements and standards established in this docket, the Commission should adopt remedies for nonperformance. However, now is not the time to establish financial remedies. The entire process of developing performance measurements, developing performance benchmarks, developing statistical measurements for parity, developing new systems for use by CLECs, and CLECs developing their own systems for

resale and providing UNEs, are simply too new and evolving. Staff can envision situations where BellSouth would be "penalized" for not being in "parity", when the real reason for the lack of "parity" is the failure of a statistical test to accurately assess parity for a particular measurement. It is for this reason, as well as the others raised in this recommendation, that Staff recommends that no financial enforcement mechanisms be set at this time. Staff is mindful of the concerns raised by CLECs that BellSouth has no economic incentive to provide competing carriers with performance equal to what it provides to itself or its affiliates. Nevertheless, like the FCC, Staff believes it is premature to set enforcement mechanisms at this time. Staff recommends that the issue of enforcement be studied further through additional workshops over the next six months.

Staff makes one further observation. During the technical conference, e.spire's representative, Jim Falvey, noted that Ameritech and NYNEX had agreed to self-executing liquidated damages in their interconnection agreements.⁵¹ While it is true that these companies agreed to a \$75,000 penalty for breach of performance, the situation involving BellSouth performance measurements is different than the situation involving Ameritech and NYNEX interconnection agreements. First, the liquidated damages were agreed to by Ameritech and NYNEX. There is no agreement in the instant proceeding. Second, the liquidated damages applied to only a handful of performance benchmarks whereas in the LPSC proceeding, the "penalties" would apply to thousands of individual performance measurements. Third, the performance benchmarks agreed to by Ameritech and NYNEX were not based upon a "parity"

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See Transcript p. 422.

analysis or untested statistical tests to prove or disprove parity. The differences between the interconnection agreements of Bell Atlantic and NYNEX and the instant docket require further scrutiny of self-enforcing penalties.

IX. DISPUTE RESOLUTION

Staff agrees with BellSouth that an expedited dispute resolution is necessary. No other party offered a comprehensive dispute resolution process⁵² because they endorsed self-executing penalties. Under the CLECs proposal, no dispute resolution would be necessary. Staff recommends that, with the modification proposed by e.spire in its Reply to Staff's Initial Recommendation⁵³, the Commission adopt the methodology proposed by BellSouth for dispute resolution as adopted by the Georgia Commission.⁵⁴

The recommended procedure is as follows: When a performance dispute arises, the aggrieved party should send written notice of the problems with a request for resolution to Bell South. Service of the notice and request for resolution would trigger a fifteen day time period within which resolution of the problem should occur. BellSouth and the CLEC would assemble a Joint Investigative Team comprised of subject matter experts. The team should be co-chaired by a representative of BellSouth and the CLEC. A root-cause analysis should be conducted to determine the source of the problem. From this analysis a plan should be developed to remedy the problem.

⁵² e.spire recommended an expedited dispute resolution procedure such as a staff mediator or ombudsman. e.spire original Comments, p. 10. Staff is not convinced that such a procedure would work or that it would involve less time than the procedure proposed by BellSouth.

⁵³ e.spire Reply to Staff's Initial Recommendation p. 6.

⁵⁴ See BellSouth original Comments pp. 27-28.

Next, if the dispute cannot be resolved within 15 days, then either party may file a formal complaint with the Commission through the Division of Administrative Hearings. The ALJ assigned to the complaint should rule within 15 days of its filing. If either party disagrees with the ALJ ruling, the party may then appeal to the Commission. Staff recommends that further refinement of a dispute resolution process be developed through continuing workshops over the next six months.

X. PROCEDURAL SCHEDULE

Parties were in general agreement with Staff's initial recommendation that the Commission continue to hold workshops to resolve, in a collaborative process, the complexities associated with the issues of levels of disaggregation, retail analogs, statistical testing, dispute resolution, and penalties. Both c.spire and Cox suggested in their Reply to Staff's Initial Recommendation that Staff recommend a procedural schedule for the workshops. Staff agrees with these suggestions. Accordingly, Staff recommends that a detailed telephone Status Conference be held on September 15, 1998 to address scheduling of workshops, timing of studies that need to be undertaken, and further details of the issues that need to be addressed. Also, Staff recommends that a workshop schedule be established as follows:

- ☞ October - address issues of disaggregation and clarification of performance measurements;
- ☞ November - address statistical testing;
- ☞ December - address retail analogs;
- ☞ January - address enforcement and dispute resolution;

- February - address any remaining issues not resolved or completed in earlier workshops; and
- March - Staff will issue its Recommendation on issues agreed to by the Parties and any issues that require resolution by the Commission.

The dates for the above workshops should be decided at the Status Conference to be held on September 15, 1998.

XI. CONCLUSION

Staff agrees with the Parties that development of performance standards for BellSouth is essential to the development of local competition in the State of Louisiana. Staff recommends that the Commission adopt the performance measurements and procedures for analyzing and monitoring these measurements as set forth herein and as attached in Exhibit A. In addition, as recommended by BellSouth, where additional analyses, studies, and refinement is required to fine-tune the process, Staff recommends that the Commission order the parties to continue with additional workshops and to work towards a mutually agreeable solution to the outstanding issues. After six months and additional workshops, Staff proposes to issue a subsequent recommendation indicating the results of the workshops and, where disputes are still at issue, advise the Commission of its alternatives and recommend solutions for final resolution of the issues.